FEDERAL REGISTER, REQUEST FOR COMMENTS
23 CFR PART 630
SUMMARY OF COMMENTS

1. Should there be a National policy to promote improved mobility and safety in highway construction and maintenance? If so, should the National policy be incorporated into the regulation or issued separately as guidance that outlines guidelines and best practices for implementation?

   I believe that the MUTCD Part VI already has this weight. Not necessary to create a new policy as much as it is to adhere to the existing MUTCD.

   Suggest that the MUTCD adopt a higher standards to address these issues and that these standards be supported through requirements in the CFR.

   - Work zone strategies must be required and include specific mitigation for projected delays
   - Site specific TCP's must be required as needed to be consistent with the approved strategy
   - Specifications must also be consistent with the approved strategy
   - Work zone design standards (geometrics, pavement marking, worker & driver safety must be raised to a higher standard

2. Are the current provisions of 23 CFR 630, subpart J adequate to meet the mobility and safety challenges of road construction and maintenance projects encountered at all stages of project evolution? If they are not adequate, what are the provisions and/or sections that need to be enhanced and/or modified to ensure mobility and safety in and around work zones?

   - 630.1010, TCP's – TCP's must be designed with strict adherence to a required work zone strategy that addresses all affected issues…….safety. mobility, driver information, etc.
   - 630.1006, Policy – DOT's policy must require a process that programs projects with respect to traffic delay impacts and that projects be programmed in an efficient manner that minimizes delay within a given corridor or area.
   - 630.1006, Policy – DOT's policy must require a process that evaluates user costs and incorporates into projects measures to offset user costs at a level established by FHWA.
   - 630.1010 (c) Pay Items – more flexibility on the use of lump sum items for those projects that can be reasonably estimated.
   - 630.1010 (d) Training – require a higher level of training a certification for those involved with work zone design and inspection

3. Should work zone regulations be stratified to reflect varying levels and durations of risk to road users and workers, and disruptions to traffic? What would be the most appropriate stratification factors (e.g., duration, length, lanes affected, Average Daily Traffic (ADT), road classification, expected capacity reduction, potential impacts on local network and businesses)?

   - ADT, duration, day vs. night, traffic impacts & location…….location is critical, as the same operation at different locations with different site conditions would require different levels of traffic control measures.

4. Currently, there are several definitions for work zone, as defined by the MUTCD, ANSI D16 (proposed), NCUTLO and NHTSA. These definitions, even though similar in basic structure and implication, differ in length and the degree of detail addressed. Should there be a common National definition for work zone to bring about uniformity? If so, what should the common National definition be?

   - While this may not be a huge problem, issues related to tracking crashes and enforcement would benefit from adopting a national standard. I prefer the definition in the new 2000 MUTCD

Transportation Planning and Programming

It is important to consider user mobility and safety impacts and worker safety requirements across the different stages of highway project development. Consideration of these impacts should begin early and be

consistently coordinated across the planning processes and project development stages. The FHWA expects that such consideration will reduce the need for recurrent work zones, the duration of work zones, and the disruption caused by work zones.

5. How, if at all, are impacts to road users due to road construction and maintenance part of the management and operations considerations that are addressed in transportation plan development?
    - Not presently taken into account on a uniform basis. However, it should be. See above comments for #2, policy.
6. To what extent should the metropolitan and statewide transportation planning processes address cross-cutting policy issues that may contribute to increases in project costs (for example, the use of more durable materials, life-cycle costing, complete closure of facilities, information sharing on utilities, etc.)? Is it appropriate to consider the impact of construction and maintenance projects to road users in planning for future roadway improvements at the metropolitan level? At the statewide level? At the corridor level?
    - Yes. I believe that if this were truly taken into account, we would see less asphalt on the east side of Washington!
    - This should occur statewide, but especially on high volume urban roads or high volume interstate corridors. The highest life-cycle value materials should be used to limit the need for future projects and future traffic impacts due to work zones.
7. What data and methods are currently available to address the above considerations? What else would be needed to support such considerations in the metropolitan and statewide transportation planning processes? At the corridor level?
    - I believe we can presently determine a pretty good cost for work zone traffic control. It should be easily considered and added to the benefit/cost worksheet.
    - Projections and mitigation of user costs & crashes should be considered as part of the cost benefit process

Project Design for Construction and Maintenance

In making decisions on alternative project designs, project designers should consider different strategies and practices that may lead to reductions in the need for recurrent road construction and maintenance work, the duration of work zones and the disruption caused by work zones. Examples of such considerations include life-cycle cost analysis, alternative project scheduling and design strategies, such as, full road closures and night time work, using more durable materials, coordinating road construction, estimation of user costs/impacts, risk and reward sharing with contractors, and constructibility reviews for projects.

8. How can the FHWA encourage agencies to incorporate the above considerations (life-cycle cost analysis, alternative project scheduling and design strategies, etc.) in the decision making process for evaluating alternative project designs? What are the most appropriate ways to include these considerations in project design?
    - Easy, mandate it! In the form of a work zone strategy document that addresses all of these issues.
9. Can user cost be a useful measure to assess alternative means to design and implement work zones? What weight should agencies assign to user costs as a decision-making factor in the alternatives evaluation process? Should analytical tools, such as QuickZone, QUEWZ-98, etc., be used for the evaluation of various design alternatives and their estimated impact to the public? What other impact measures (delay, speed, travel time, crashes) should agencies estimate and use for alternatives evaluation?
    - Very good question. However, this really needs to be a research topic and studied in-depth.
    - Yes, QuickZone appears to be a useful tool in this area……the real issue may be as to what level or what percentage of user costs do we mitigate? 50%, 100%? I would say that 50% would be a good start, maybe higher.
    - Crashes should be projected and considered as well as achieving a balance with the safest work zones and work methods.

10. Given the fact that utility delays have been cited as roadblocks to efficient project delivery, what should be done to address this issue?
    - The only way this can be addressed is to begin making the utility companies pay for delays. This would be some major legislation that probably would never be passed.
    - Tougher permit process…. strict enforcement of the same rules that all DOT's and Contractors must abide by.
    - Requirement for more oversight of utility traffic control measures, paid for by the utilities.

Managing for Mobility and Safety in and Around Work Zones

There are many methods that can be applied to managing traffic in and around work zones. The application of Intelligent Transportation Systems (ITS) for purposes, such as, traffic management, automated enforcement and traveler information is a useful method to improve transportation mobility and safety. The current and future mobility and safety challenges presented by work zones may require Traffic Control Plans (TCPs) to include traffic management, enforcement and operations considerations (such as ITS based traffic control and traveler information, speed management and enforcement, incident and emergency management, etc.), security considerations, and other considerations (for example, utility location and coordination information).

11. The current regulation specifies the requirement for TCPs for work zones, but does not address the issues of sustained traffic management and operations, or traffic enforcement methods and partnerships. Should the scope of TCPs be expanded to include such considerations? What are the most relevant practices or technologies that should be considered in planning for traffic management, enforcement and operations? What are the most appropriate ways to facilitate the inclusion of such considerations in traffic control planning?
    - The answer to the first question is no. The answer to the second is contained in one word "Internet" … the Internet is used by a lot of people to gather information. For those who do not have a computer, you need to use the telephone. The answer to the third question is in "Public Outreach" (see Number 17 below).
    - This is probably not needed on individual TCP's, but should be a requirement of an overall project, especially for overlapping projects. I'd suggest a separate portion of the PS&E…….or possibly a separate contract to provide for the needed equipment and management of a give project or corridor with multiple projects.
    - This could also be accomplished thru a corridor approach to programming projects and using similar technology and methods of current operational traffic management, but on a temporary basis……much of this could be incorporated into the future ITS system for the completed project.

12. Should TCPs address the security aspects of construction of critical transportation infrastructure? Should TCPs address the security aspects of work zone activities in the vicinity of critical transportation or other critical infrastructure?
    - No. Security issue should be separate considerations, but managed to include traffic control issues when needed.
13. How should TCPs address ADA requirements?
    - This is one location for major clarification. My opinion is that if the improvements will add ADA facilities (i.e. ramps, sidewalk) to facilities that don't presently have these improvements, then the project is exempt from meeting temporary ADA requirements. If, however, the project is replacing existing ADA facilities, then there needs to be a TCP that addresses alternate routes and signing for people with disabilities that takes them around the work zone.
    - This should be addressed within the TCP's to the level that currently exists for access. Any construction of alternate access would have to be done to current standards.
14. Should more flexibility be allowed on who develops TCPs--State DOTs, municipalities, contractors or law enforcement agencies--and how should the responsibility for developing TCPs be assigned?

Should certification be required for TCP developers? How can the owners and contractors share the roles, risk and rewards in developing TCPs and implementing and operating work zones?

- I am hoping for the opposite. I believe that all TCPs should be signed by a Traffic Engineer with Traffic Control Supervisor credentials. This will combine the knowledge of moving vehicles through the work zone with keeping the workers safe. If we lighten up on the requirements, there will be a lot more variants in the work zone and we want to strive for uniformity.
- This is a public safety issue that cannot be completely delegated to others outside of the DOT. Our first concern should be for the safety of drivers and workers, closely followed by minimizing delay. I would agree with closer coordination with contractors, etc., but the authority, development and oversight must remain with the DOT. Other related issues have shown a reduction in providing for safety when others that do not have the ultimate responsibility are give too much allowance for determining what is safe…….”safe” is usually compromised by a need for profit.

15. To ensure roadway mobility and safety and work area safety, should mobility and safety audits be required for work zones?

    Yes. Completely agree. There should be well defined rules so all would know where the level of compliance is.

Public Outreach and Communications

To reduce the anxiety and frustration of the public, it is important to sustain effective communications and outreach with the public regarding road construction and maintenance activity, and the potential impacts of the activities. This also increases the public's awareness of such activities and their impacts on their lives. The lack
of information is often cited as a key cause of frustration for the traveling public. Therefore, it is important to identify the key issues that need to be considered from a public outreach and information perspective.

16. How can we better communicate the anticipated work zone impacts and the associated mitigation measures to the public? Who--the State, local government, contractor, or other agency--should be responsible for informing the public?
    - The Internet. The responsibility should be in the hands of the contractor.
    - Suggest required use of communication professionals as subcontractors to handle this work, in close coordination with DOT & contractor. Should use whatever means of communication that works.
17. Should projects with substantial disruption include a public communication plan in the project development process? If so, what should such a plan contain?
    - This is another area that is in need of great improvement. The public is much more pliable if we let them know what is going on and why. It is absolutely amazing what can be pulled off if we let people know about it. Take for example the closing of I-405 for a weekend for paving in Seattle. All major projects should have a public communications plan and should include Internet (with camera image) and phone recording with daily or weekly work updates. For projects that have a large queuing or detour potential, include a temporary flow map on the Internet so people can choose the best alternate routes.
    - This should be required. We are running out of engineering solutions (by themselves) and the public information solution may be our best chance to accomplish roadway improvement projects & maintenance under adverse traffic conditions.
    - Should use all available means…….HAR, PCMS, CMS, Media, Internet, Telephone hotlines, etc.

Analyzing Work Zone Performance

Evaluation is a necessary tool for analyzing failures and identifying successes in work zone operations. Work zone performance monitoring and reporting at a nationwide level has the potential to increase the

knowledge base on work zones and help better plan, design and implement road construction and maintenance projects.

18. Should States and local transportation agencies report statistics on the characteristics of work zones (such as number of work zones, size, cost, duration, lanes affected, ADT, road classification, level of disruption and impacts on local network and businesses) to appropriate State or Federal agencies? If so, in what ways do you think this would be beneficial?
    - I don't see this as necessary. It would just become a huge database that someone will have to keep current and accurate.
    - There may be some benefit, but I'm not sure it would be worth the effort. I believe we already know where most of the problems exist. I would like FHWA to continue the best practices effort and some of the above could be included.
19. Should States and local transportation agencies report statistics on the mobility performance of work zones? Are typical mobility measures, such as, delay, travel time, traffic volumes, speed and queue lengths appropriate to analyze work zone mobility performance? What are the top three measures that are most appropriate?
    - I don't believe we could do this if we wanted. To do this would require collecting a lot of data. The decision would be do we spend the time and money collecting data, or spend the money on construction. Also, what would we do with the data? It is likely that we will only use it for a short time then abandon it.
    - Some measurement may be needed just to determine if there is improvement, but I would like to keep it simple……..there are just too many variables in work zones.
20. Are the currently used measures for safety (typically, crashes, fatalities and injuries) appropriate to analyze work zone performance? [No.] If not, what other measures should be considered? [You need to consider human factors that are not easily quantifiable. This will include whether the work zone drives well, and if the signing communicated well with the driver. We should not measure active work zones by keeping score with a body count. Accepted work zone traffic control techniques must be used to look at the potential for crashes before they occur.] Are current mechanisms for collecting this information adequate? [The police need to have an easier to use means of inputting the accident into the system. I would highly recommend a simple push-button system attached to GPS coordinates. The officer, once they arrive on the sight, can push the button and an accident is recorded. Data on the accident details can be entered at a later date, or if it is a minor accident they are completely done with one push of a button. What I have found is that officers don't want to fill out paperwork, so a lot of accidents get lost.] If not, how can we improve them? [See prior answer & suggest specific attention to this area by analysts that are work zone specialists, not much work zone crash data work currently being analyzed.]

FINAL COMMENT:

FHWA has taken a leadership role in the work zone area by providing much guidance and expertise. Work Zone performance would be improved by taking the next step……insisting on compliance of well defined standards, as described above. In general, many are reluctant to do more than meet the minimums or worse yet …….do less by ignoring the current guidance and standards. Unfortunately, the traditional approach to roadway construction still exists and does not work well with today's traffic conditions. We must insist on raising work zone issues to a higher level.